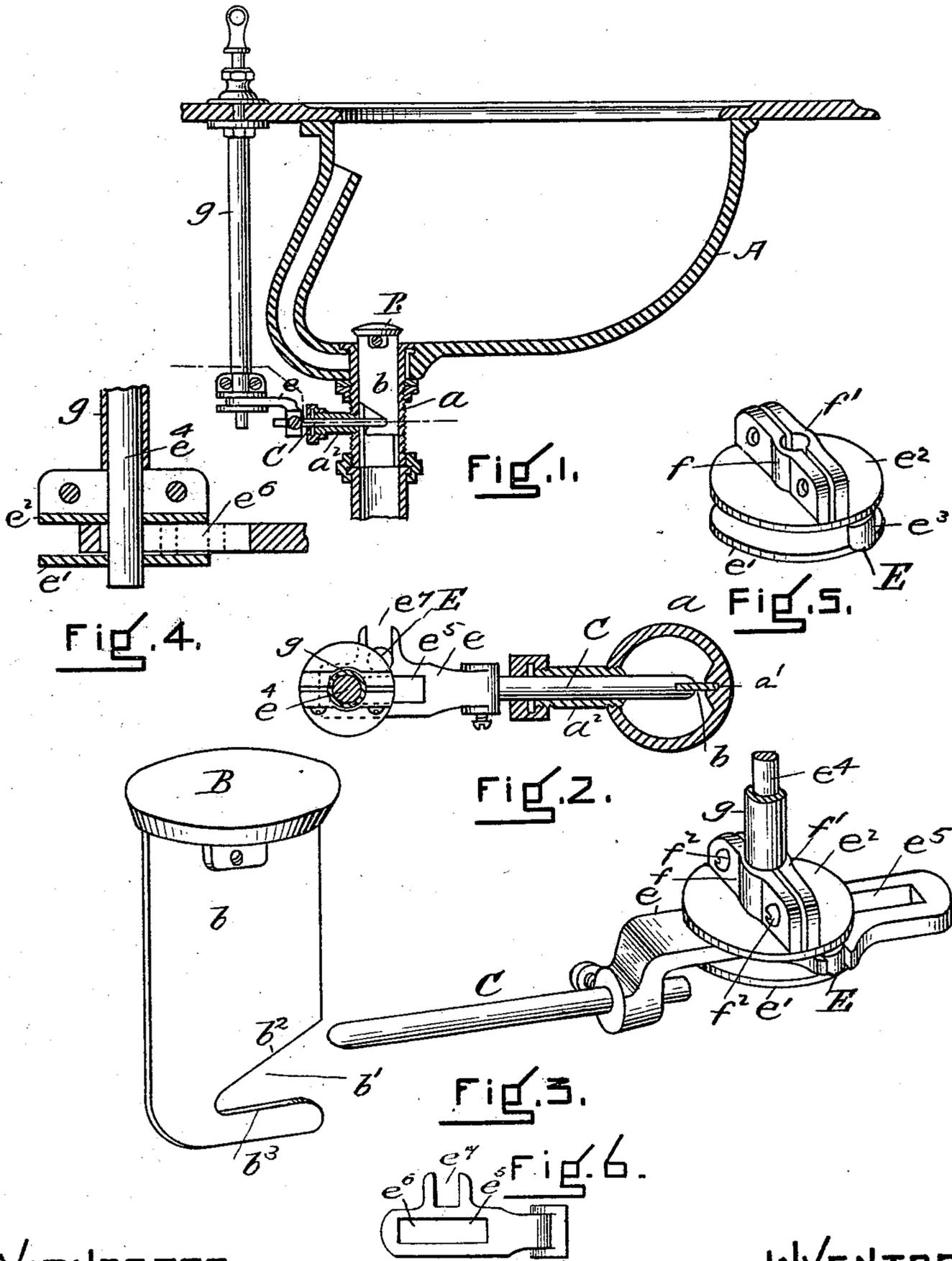


(No Model.)

S. P. CROSWELL.
SET BOWL OR WASHBASIN.

No. 514,214.

Patented Feb. 6, 1894.



WITNESSES
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UNITED STATES PATENT OFFICE.

SAMUEL P. CROSWELL, OF WEST MEDFORD, MASSACHUSETTS.

SET BOWL OR WASHBASIN.

SPECIFICATION forming part of Letters Patent No. 514,214, dated February 6, 1894.

Application filed May 15, 1893. Serial No. 474,215. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL P. CROSWELL, a citizen of the United States, and a resident of West Medford, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Set Bowls or Washbasins, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, and explaining its nature.

The invention is an improvement upon that described in my Letters Patent No. 447,232, dated February 24, 1891, and particularly upon that portion of the invention which appertains to the stopper and the means for operating it, the invention comprising various improvements in construction, whereby the cost of manufacture is cheapened, and the efficiency of the device improved.

In the drawings Figure 1. is a view in vertical section of a basin having the features of my invention. Fig. 2. is a horizontal section upon the dotted line of Fig. 1. Fig. 3. is a perspective view of the principal operative parts enlarged. Figs. 4 and 5 are detail views. Fig. 6 is a plan view to illustrate the slots in the connection between the crank and the spindle which operates the slide plate.

A represents the bowl or basin. a is the outlet or discharge pipe which has the guide recesses a' of said patented invention and the spindle guiding sleeve a^2 . The stopper B has the slide plate b , which slides vertically in the recesses a' and in the edge of which near the bottom is formed the recesses b' , the upper edge b^2 of which is inclined from the outer edge downwardly, and the lower edge b^3 of which is straight. The inclination b^2 of this plate is oppositely arranged to that of the corresponding inclination of the guide plate of the patented device, and this permits the employment of an operating spindle C, having simply a conical or rounded end c and one not directly connected with the slide. An inward movement of this spindle causes its end to come into contact with the incline b^2 and to lift the stopper. A reverse movement of the spindle does not draw the stopper to its seat, as in my previous construction, but leaves it free to drop by gravity or to be forced down by or with the water. The lower section

or point b^3 of the plate forms a stop by which the stopper cannot be removed from the escape passage without the withdrawal of the spindle C. The spindle C is supported by the sleeve a^2 , and it is operated by the crank E and the connection e between the crank and the spindle. Both the crank and the connection vary from the corresponding parts of my said patent. The crank is formed by means of two plates e' and e^2 across which extends the crank pin e^3 . This crank pin may be cast integral with the parts or may be separate from them. I prefer, however, that it be one with the plates. These plates are held by the turning rod e^4 , which passes through both and to which they are fastened, as hereinafter specified. The crank pin is connected with the spindle by the connection e which has in it the long slot and a recess at right angle thereto, but not entering it, being separated therefrom by a cross-bar which collectively are lettered e^5 , and the spindle e^4 passes through the section or slot e^6 and the crank pin moves in the section or recess e^7 . This form of crank provides a support for the connection and a guide for the same, the connection resting upon the plate e' and being guided by the portion of the spindle e^4 which passes through the slot. It provides means whereby a direct forward and backward movement is given the connection, the crank pin playing or sliding in the section of the recess. As the end of this section of recess is open, it becomes possible to place a crank pin which is integral with the plates e' e^2 in it. I prefer to attach the crank to the operating spindle by a device which will permit the turning of the spindle upon the application of more power than is necessary for the proper operation of the device, and such a connection can be established readily by means of a friction clutch, and such a clutch is shown in Fig. 5 of the drawings. It is represented as obtained by means of jaws f f' cast integral with the upper plate e^2 extending upwardly therefrom, preferably formed by a cross-cut and having curved surfaces which bear against the spindle e^4 and are moved or brought into contact therewith to exert a frictional contact of any desired extent by the screws f^2 which unite the two sections f' and operate to bring them together.

To support the spindle, I employ a long tube or sleeve *g* extending downward from the slab about the basin or any other suitable support, preferably to the clamp. This sleeve
 5 has near its upper end a combined nut and washer or flange integral with it, and which bears against the under surface of the slab, and is clamped thereto by the upper combined nut and washer which screws on to the
 10 threaded end of the sleeve or tube, and acts to clamp the under flange or washer firmly in place. The upper end of the spindle has a suitable turning key or handle.

I prefer that the recess *e*⁷ in the piece *e* do
 15 not extend into the slot *e*⁵ but that it be separated therefrom by a cross bar or section, the inner edge of which forms one of the sides of the slot *e*⁵ and serves to provide the spindle
 20 *e*⁴ with one continuous guiding surface and one which prevents it from being deflected into the recess *e*⁷.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

25 1. In a mechanism for operating the stopper of a water escape passage of a set bowl or basin, the combination of the water escape passage, a vertically movable plate contained in said passage and carrying at its upper end
 30 a stopper and having at or near its lower end an incline extending from its side edge, an operating plug or spindle having a horizontal movement, the end of which plug is adapted

to engage said incline, and means for moving said plug or spindle comprising a crank supported and operated by the spindle *e*⁴ and
 35 consisting of the plates *e*¹, *e*², and the crank pin *e*³, connecting the two plates, and a slide plate between the spindle *e*⁴ and crank pin and the operating plug or spindle having the
 40 long slot *e*⁵ through which the lower end of the spindle *e*⁴ extends, and the crank pin recess *e*⁷ open at its outer end and separated from the slot *e*⁵ by a cross bar, all as and for the purposes described. 45

2. In a mechanism for operating the stopper of a water escape passage of a set bowl or basin, the combination of the water escape passage, a vertically movable plate contained in said passage and carrying at its upper end
 50 a stopper and having at or near its lower end an incline, an operating plug or spindle, the inner end of which is brought into contact with said incline to move the plate and stopper, a turning device carried at the end of an
 55 operating rod connected with said plug or spindle to reciprocate the same and a friction clutch interposed between said turning device and its actuating rod adapted to permit the turning of said rod upon an excess of pressure to relieve the parts from breakage, substantially as and for the purposes described. 5c

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Witnesses:

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